SOYAL®
V060808

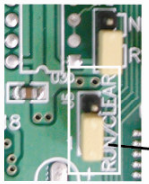
Networking Controller User Guide AR-716E

Networking Controller User Guide AR-716E

❶ Initial setting

1. Power Off
2. Release the Battery
3. J5 to Clear position
   J5 to Run after 15 sec.
4. Connect the Battery
5. Power On

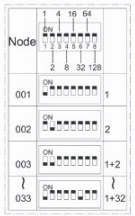
Work Done !

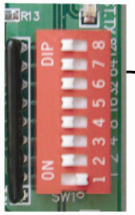


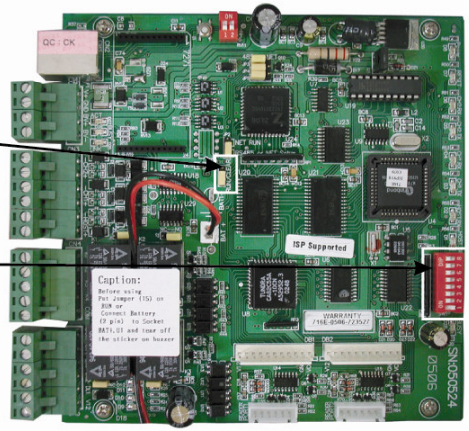
❷ Node Setting

1. Power Off
2. Release the Battery
3. Set Node number
4. Connect the Battery
5. Power On

Work Done !







❸ AR-716Ei Configuration

3-1 Reset to Factory Default of the AR-727i

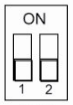
IP Resent

Press RESET button more than 5 seconds, then AR-727i will restore to Factory Default value.

IP Address : 192.168.001.127
Gateway IP : 192.168.001.254
Subnet Mask : 255.255.255.000
Serial Port : 9600,N,8,1
TCP Port : 1621
Password : none

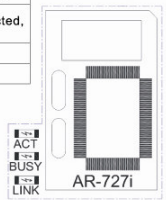
3-2 DIP Switch Settings

	Description
Switch 1	DHCP Function AR-727i support Auto Configuration of the IP and gateway addresses and subnet mask function, but must make sure the DHCP Server is active.
Switch 2	Serial Setup Mode



3-3 AR-727i's contains three LED indicators, as described in the following table

LED Name	LED Color	LED Function
Link	Yellow	Media is connected.
	Off	Media is not connected.
ACT	Green	10 Mbps Ethernet connection.
	Off	Ethernet cable is disconnected, or has a short.
BUSY	Red	Configuration Setup.
	Off	Number

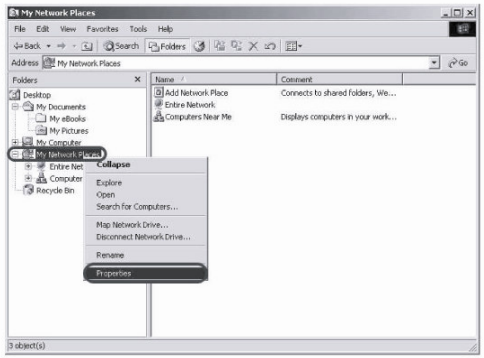


3-4 How to set IP address on the AR-716Ei

3-4-1 Get IP address by using Net727i software

Usually, the network of some companys don't built-in the DHCP Server. Therefore, we can use the following method to get default IP address and modify it. The steps as follows:

1. Press RESET button more than 5 seconds, The BUSY LED will flash 5 times, then AR-727i will restore to Factory Default value.
2. Open explorer, click "My Network Places" and press right key to open operties.



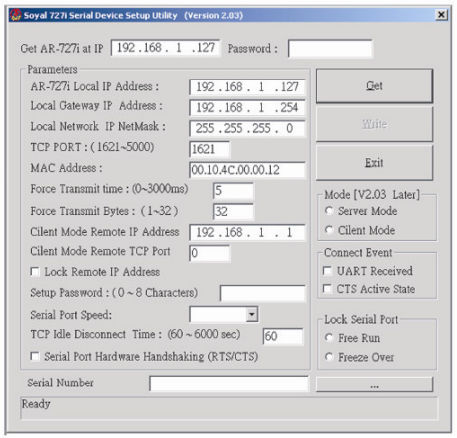
Please visit www.soyal.com to download the operation manual for more detailed information. AR-716E is also allowed to operate through software. Please contact your supplier to acquire it.

3. Click "Local Area Connection" and press right key to open Properties.Then double click Internet Protocol (TCP/IP) to open Properties.
4. Click "Use the following IP address" and enter IP address 192.168.001.64,Subnet mask 255.255.255.0
5. Click "ok" to exit
6. Install Net727i.exe into your PC and run Net727i.exe (Start → Programs → soyal software → Net727i

)
7. Click "Get" to get default Local IP Address, Gateway, Netmask and TCP Port.
8. Change new address and parameters then click "write".
9. switch DIP SW-1 and SW-2 to "OFF" position.

Remark:

- **How to know PC's IP Address? (Win98)**
  Start → execute → enter "winipcfg".
- **How to know PC's IP Address? (Win2000)**
  Start → Programs → Accessories → Command Prompt → C:\> ipconfig



Setting	Value	Notes	Variable
Local IP Address	192.168.001.127	Defines own IP Address of the AR-727CM	–
Local Gateway IP Address	192.168.001.254	Defines the IP Address of the default gateway	–
Local Subnet Mask	255.255.255.000	Defines the IP Address range for the local network segment	–
TCP Port	1621	The TCP port that other devices must use to contact this device. To avoid conflicts with standard TCP ports.	–
MAC Address	00.E0.4C.00.00.50	The MAC (Media Access Control) address is a unique identifier set at the factory.	–
Force Transmit time (Millisecond)	5	Forces AR-727CM device's TCP/IP protocol software to try to pack serial data received during the specified time into the same data frame.	V
Force Transmit Bytes	32	Defines the amount of data in the serial, Ethernet buffer at which the break condition will be generated and the contents of buffer will be sent out via the Ethernet port.	V
Lock Remote IP Address	-	Allows contact with only the specified remote IP address.	V
Lock Serial Port(Free Run or Freeze Over)	-	To avoid the hacker use this IP to intercept data when Remote IP Address doesn't receive data.	V
Setup Password	none	Console password	V
Serial Port Speed	9600	Changes current baud rate of the AR-727CM's serial port (from 2400bps to 57600bps).	–
TCP Auto Disconnect Time (Second)	60	This device automatically closes TCP connection if there is no TCP activity for the given time.	V
Serial Port Hardware Handshaking (RTS/CTS)	-	An exchange of signal over specific wires which each device indicates its readiness to send or receive data.	V
DHCP	-	Selecting the enable option allows DHCP to automatically assign the AR-727CM's IP address.	V

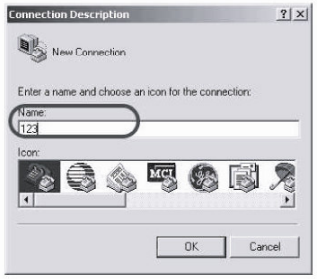
3-5 Get IP address by DHCP Server:

AR-727i support Auto Configuration of the IP and gateway addresses and subnet mask function, but must make sure the DHCP Server is active.The steps as follows:

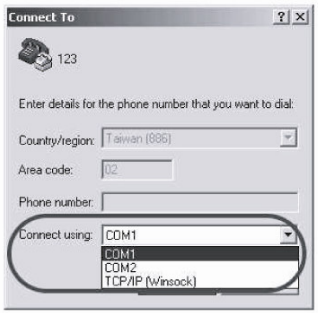
1. Power off.
2. PCB diagram as follows by using DHCP Function.
   - ❶ Switch DIP SW-1 to "ON" position.
   - ❷ Switch DIP SW-2 to "OFF" position.
   - ❸ Switch JumperJ2, J3, J4 and J5 to Net position.
3. Power on. In begging state the ACT LED will flashing, after IP has got ACT LED will off and auto save the new IP address to EEPROM.
4. Power off.
5. Then, Switch DIP SW-1 to "OFF" position and Switch DIP SW-2 to "ON" position. (return to Serial Setup Mode)
6. Connect AR-701CM to the HOST of the PCB.
7. Power on.
8. To modify parameter on the AR-727i through the Hyper-Terminal function of the Window.
   (Start → Programs → Accessories → Communication → Hyper Terminal)
9. Click "Hyper-Terminal".Shown as follows:

HyperTerminal
by Hilgraeve Monroe, Michigan USA
For more power and convenience, upgrade to hot new HyperACCESS, TODAY!
Developed for Microsoft by Hilgraeve Inc.
Upgrade Info...
Copyright1999 Hilgraeve Inc.

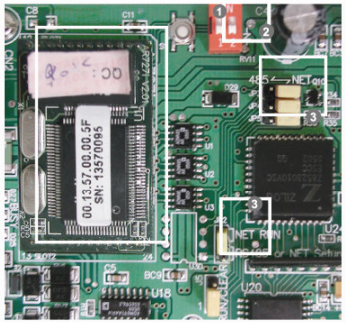
10. key-in any temporary name.It is not important matter.



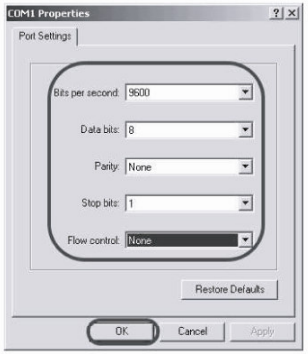
11. Choose which COM port that AR-701CM connect and click OK to exit.



TCP/IP panel



12. Set Port Settings to 9600, 8, None, 1, None and click "OK" to save.



13. AR-727i already gets IP address now shown as follows: Note that save it after set all parameters.

```
IP Address :192.168.001.127
Gateway IP :192.168.001.254
Netmask IP :255.255.255.000
TCP Port   :1621
Remote IP  :192.168.001.001
Password   :

=== SOYAL AR-727i Ver:1.09 ===
       0. Local IP
       1. Gateway IP
       2. Netmask IP
       3. TCP Port
       4. Remote IP
       5. Password
       6. Save
==> Quit(OFF DIP SW:1) or Enter a choice:
```

14. Power off. Then switch DIP SW-2 to "OFF" position, take away communication IC Chip on the U3 position of the PCB and AR-701CM.

AR-716E | Networking Controller

3-6 Get IP address by AR-701CM (COM Port) connects to PC

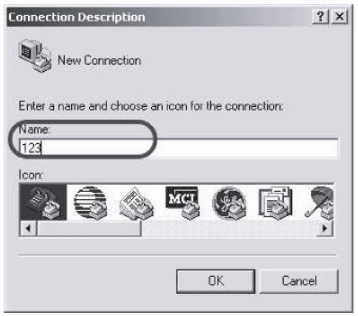
At first, PCB diagram as follows and Connect AR-701CM to the HOST of the PCB:

- ❶ Switch DIP SW-1 to "OFF" position.
- ❷ Switch DIP SW-2 to "ON" position. (Serial Setup Mode)
- ❸ Switch JumperJ2,J3, J4 and J5 to RS-485 position.

1. To modify parameter on the AR-727i through the Hyper-Terminal function of the Window.
   (Start → Programs → Accessories → Communication → Hyper Terminal)
2. Click "Hyper-Terminal". Shown as follows:

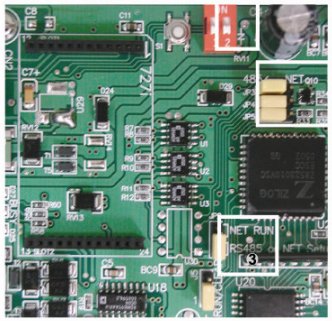
HyperTerminal
by Hilgraeve Monroe, Michigan USA
For more power and convenience, upgrade to hot new HyperACCESS, TODAY!
Developed for Microsoft by Hilgraeve Inc.
Upgrade Info...
Copyright1999 Hilgraeve Inc.

3. key-in any temporary name. It is not important matter.

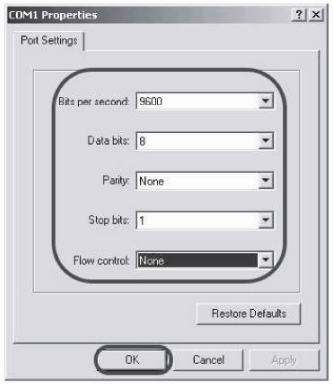


4. Choose which COM port that AR-701CM connect and click OK to exit.

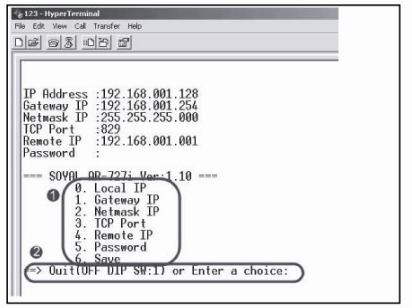
RS-485 panel



5. Set Port Settings to 9600, 8, None, 1,None and click "OK" to save.



6. AR-727i already gets IP address now shown as follows:



7. Please refer above❶item and enter item on the ❷so that set all parameters.
8. Note that enter item 6 on the❷to save parameter after finishing to set parameter.
9. Then switch DIP SW-1 and SW-2 to "OFF"position.

Please visit our web to get more detail information

www.soyal.com